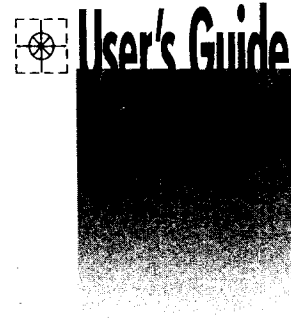
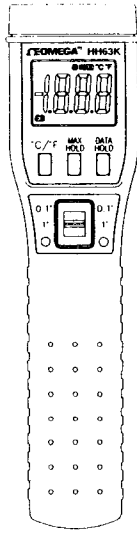


CE



# HH63K Digital Thermometer



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It is the policy of OMEGA to comply with all worldwide safety and EMC/EMI regulations that apply. OMEGA is constantly pursuing certification of its products to the European New Approach Directives. OMEGA will add the CE mark to every appropriate device upon certification.

The information contained in this document is believed to be correct but OMEGA Engineering, Inc. accepts no liability for any errors it contains, and reserves the right to alter specifications without notice.

**WARNING:** These products are not designed for use in, and should not be used for, patient connected application.

### **RETURN REQUESTS / INQUIRIES**

Direct all warranty and repair requests/inquiries to the OMEGA Customer Service Department. BEFORE RETURNING ANY PRODUCT(S) TO OMEGA, PURCHASER MUST OBTAIN AN AUTHORIZED RETURN (AR) NUMBER FROM OMEGA'S CUSTOMER SERVICE DEPARTMENT (IN ORDER TO AVOID PROCESSING DELAYS). The assigned AR number should then be marked on the outside of the return package and on any correspondence. The purchaser is responsible for shipping charges, freight, insurance and proper packaging to prevent breakage in transit.

FOR **WARRANTY RETURNS**, please have the following information available BEFORE contacting OMEGA:

1. P.O. number under which the product was PURCHASED.
2. Model and serial number of the product under warranty, and
3. Repair instructions and/or specific problems relative to the product.

FOR **NON-WARRANTY REPAIRS**, consult OMEGA for current repair charges. Have the following information available BEFORE contacting OMEGA:

1. P.O. number to cover the COST of the repair.
2. Model and serial number of product, and
3. Repair instructions and/or specific problems relative to the product.

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## INTRODUCTION

This instrument is a portable 3½ digit, compact-sized digital thermometer designed to use external K-type thermocouple as temperature sensor. Temperature indication follows Reference Temperature/Voltage Tables N.I.S.T. Monograph 175 Revised to ITS-90 for K-type thermocouples. One K-type thermocouple is supplied with the thermometer.

## SAFETY INFORMATION

It is recommended that you read the safety and operation instructions before using the thermometer.

### **WARNING**

To avoid electrical shock, do not use this instrument when voltages at the measurement surface exceed 24V AC or DC.

### **WARNING**

To avoid damage or burns, do not make temperature measurement in microwave ovens.

### CAUTION

Repeated sharp flexing can break the thermocouple leads. To prolong lead life, avoid sharp bends in the leads, especially near the connector.

The  $\Delta$  symbol on the instrument indicates that the operator must refer to an explanation in this manual.

## SPECIFICATIONS

### ELECTRICAL

**Temperature Scale:** Celsius or Fahrenheit user-selectable.

**Measurement Range:** -50°C to 1300°C, -58°C to 2000°F.

**Resolution:** 0.1°C or 1°C, 0.1°F or 1°F.

**Accuracy:** Accuracy is specified for operating temperatures over the range of 18°C to 28°C (64°F to 83°F), for 1 year, not including thermocouple error.

±(0.3%rdg + 1°C) -50°C to 1000°C

±(0.5%rdg + 1°C) 1000°C to 1300°C

±(0.3%rdg + 2°F) -58°F to 1832°F

±(0.5%rdg + 2°F) 1832°F to 1999°F

**Temperature Coefficient:** 0.1 times the applicable accuracy specification per °C from 0°C to 18°C and 28°C to 50°C(32°F to 64°F and 82°F to 122°F).

**Input Protection:** 24V dc or 24V ac rms maximum input voltage on any combination of input pins.

**Reading Rate:** 2.5 times per second.

**Input Connector:** Accepts standard miniature thermocouple connectors.

#### **ENVIRONMENTAL**

**Ambient Operating Ranges:** 0°C to 50°C (32°F to 122°F)<80%R.H.

**Storage Temperature:** -20°C to 60°C (4°F to 140°F)<70%R.H.

#### **GENERAL**

**Display:** 3½ digit liquid crystal display (LCD) with maximum reading of 1999.

**Battery:** 4 pcs 1.5V (AAA size).

**Battery Life:** 200 hours typical.

**Dimensions:** 170mm(H) x 44mm(W) x 40mm(D).

**Weight:** 140g.

# OPERATING INSTRUCTIONS

## Selecting the Display Resolution

The thermometer allows two choices of resolution:

High resolution: 0.1°C or 0.1°F

Low resolution: 1.0°C or 1.0 °F

To select the alternate display resolution, Slide the power switch to 1.0° or 0.1° resolution.

## °C/°F Selecting the Temperature Scale

Readings displayed in either degrees Celsius(°C) or degrees Fahrenheit(°F). When the thermometer is turned on, it is set to the temperature scale that was in use when the thermometer was last turned off. To change the temperature scale, press the °C/°F key.

### **DATA HOLD Mode**

Pressing the DATA HOLD key to enter the Data Hold mode, the "H" annunciator is displayed. When DATA HOLD mode is selected, the thermometer held the present readings and stops all further measurements.

Pressing the DATA HOLD key again cancels DATA HLOD mode, causing thermometer to resume taking measurements.

### **MAX HOLD Mode**

Pressing the MAX HOLD key to enter the MAX HOLD mode. The thermometer then records and updates the maximum absolute values and the MAX HOLD annunciator appears on the display. Pressing the MAX HOLD key again to exit the MAX HOLD recording mode.

In the MAX HOLD mode, press DATA HOLD key to stop the recording, press DATA HOLD key again to resume recording.




# OPERATOR MAINTENANCE

## WARNING

To avoid possible electrical shock, disconnect the thermocouple connectors from the thermometer before removing the cover.

### Battery Replacement

Power is supplied by four 1.5V (AAA size) batteries. The "  " appears on the LCD display when replacement is needed. To replace the batteries, remove the screw from the back of the meter and lift off the battery cover. Remove the batteries from battery contacts.

## WARRANTY

OMEGA warrants this unit to be free of defects in materials and workmanship and to give satisfactory service for a period of **13 months** from date of purchase. OMEGA Warranty adds an additional one (1) month grace period to the normal **one (1) year product warranty** to cover handling and shipping time. This ensures that OMEGA's customers receive maximum coverage on each product. If the unit should malfunction, it must be returned to the factory for evaluation. OMEGA's Customer Service Department will issue an Authorized Return (AR) number immediately upon phone or written request. Upon examination by OMEGA, if the unit is found to be defective it will be repaired or replaced at no charge. However, this WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of being damaged as a result of excessive corrosion; or current, heat, moisture or vibration; improper specification; misapplication; misuse or other operating conditions outside of OMEGA's control. Components which wear or which are damaged by misuse are not warranted. This includes contact points, fuses, and triacs.

**OMEGA is glad to offer suggestions on the use of its various products. Nevertheless, OMEGA only warrants that the parts manufactured by it will be as specified and free of defects.**

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**SPECIAL CONDITION:** Should this equipment be used in or with any nuclear installation or activity, purchaser will indemnify OMEGA and hold OMEGA harmless from any liability or damage whatsoever arising out of the use of the equipment in such a manner.

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- Load Cells & Pressure Gauges
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Flowmeters & Flow Computers
- Air Velocity Indicators
- Turbine/Paddlewheel Systems
- Totalizers & Batch Controllers

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Assemblies
- Wire: Thermocouple, RTD &  
Thermistor
- Calibrators & Ice Point References  
Monitors
- Recorders, Controllers & Process  
Monitors
- Infrared Pyrometers

## ENVIRONMENTAL

- ### MONITORING AND CONTROL
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  - Refractometers
  - Pumps & Tubing
  - Air, Soil & Water Monitors
  - Industrial Water & Wastewater  
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  - pH, Conductivity & Dissolved  
Oxygen Instruments

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